# The effectiveness of traditional Chinese medicine in the prevention and treatment of adverse effects caused by glucocorticoids in the treatment of nephrotic syndrome

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ABSTRACT. Objective: To investigate the effectiveness of traditional Chinese medicine in the prevention and treatment of adverse effects caused by glucocorticoids in the treatment of nephrotic syndrome. METHODS: A retrospective analysis of 80 patients with nephrotic syndrome caused by glucocorticoid therapy in our hospital from January 2017 to December 2018 was conducted. The patients were randomly divided into 40 control groups and 40 patients. research group. Both groups were treated with glucocorticoid prednisolone acetate, and the study group was treated according to TCM syndrome differentiation and treatment of traditional Chinese medicine decoction. **RESULTS:** The study found that the treatment effect of the study group was significantly better than that of the control group. The difference between the two groups was statistically significant (P<0.05). The incidence of side effects caused by hormones in the study group was significantly higher than that of the control group. Statistical significance (P < 0.05). **Conclusion:** Through the dialectical prevention and treatment of traditional Chinese medicine in patients with nephrotic syndrome caused by glucocorticoid therapy, it can effectively prevent patients from adverse effects, improve the patient's disease itself, and reduce the incidence of adverse effects to improve the patient's treatment prognosis. Can be used in clinical promotion.

**KEYWORDS:** traditional Chinese medicine; glucocorticoid; nephrotic syndrome; adverse effects

# 0. Introduction

Pharmacological doses of glucocorticoids have obvious anti-inflammatory and immunosuppressive effects, play an important role in the treatment of kidney

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diseases, and can be used to treat nephrotic syndrome<sup>[1]</sup>. However, due to the particularity of kidney disease, the dose of hormones is large, and the course of treatment is long, and it is difficult to avoid adverse reactions of hormones. Therefore, according to the clinical manifestations of different glucocorticoids in the treatment of nephrotic syndrome, our hospital has achieved good curative effect with the principle of syndrome differentiation and treatment of traditional Chinese medicine<sup>[2]</sup>, enabling a large number of patients to receive hormone therapy and effectively reducing the occurrence of side effects. This article explores the effectiveness of Chinese medicine in the prevention and treatment of adverse effects caused by glucocorticoids in the treatment of nephrotic syndrome. The report is as follows:

## 1. data and methods

# 1.1 General Information

Retrospective analysis of 80 patients with nephrotic syndrome caused by glucocorticoid therapy in our hospital from January 2017 to December 2018. The patients were randomly divided into 40 control groups and study groups. . All patients meeting the diagnostic criteria were randomly divided into two groups: 40 patients in the treatment group, including 21 males and 19 females, aged 19-62 years, mean (45.1±3.9) years old; 40 patients in the control group, including 20 males 20 females, aged 20 to 65 years, mean (46.1  $\pm$  4.2) years old. Exclude patients with hormonal contraindications. There was no significant difference in clinical general data between the two groups, which was comparable.

## 1.2 method

The control group was treated with oral prednisolone standard regimen. The initial dose was 1 mg/kg, about 60 mg per day, and the morning dose was 1 time. According to the patient's condition, after 8 to 12 weeks, the amount was gradually reduced, every 1~2 weeks. 10% reduction, combined with the actual condition of the patient, the clinical diuretic swelling, blood pressure reduction, demotion, anti-infection, calcium supplementation, nutritional support and other symptomatic

treatment.

The research group in the control group based on the treatment of Chinese medicine dialectical treatment, according to different periods and changes in the patient's condition, through traditional Chinese medicine syndrome differentiation and treatment of traditional Chinese medicine treatment. Divided into three phases: early, middle and late: (1) early stage of taking hormones is the symptoms of kidney yin deficiency, should be nourishing yin and clearing heat, use Zhibai Dihuang Pills plus or minus treatment: Zhimu, Phellodendron 15g, Rehmannia glutinosa 25g, Chinese yam, 30g of raw meat, 30g of raw earth, 20g of Ophiopogon japonicus, Alisma, 15g of peony bark, 10g of licorice, 10g of medicinal juice in the morning and evening according to the dose of 300ml of medicinal juice; (2) gradual reduction with hormones The patient entered the mid-term performance and selected Qingxinlianzi Pills for addition and subtraction: Astragalus 20g, Shilianzi, Ophiopogon japonicus, Dioscorea, Plantain, 15g each, Codonopsis, Bupleurum, Astragalus 30g, Zhigancao 10g, also according to 1 dose per day The 300ml medicinal juice atmosphere is taken twice in the morning and evening; (3) in the continuous low-dose treatment of hormones, the patient may have corticosteroid withdrawal syndrome, and the treatment of Jinqi Shenqi Pills plus and minus, Rehmannia glutinosa, Chinese yam and Guizhi 20g, peony, epimedium, psoralen, atractylodes, tangerine peel, 15g each, hawthorn 25g, according to the daily dose of 300ml of medicinal juice twice a day and evening.

# 1.3 statistical methods

The data of this study were compared and analyzed by using SPSS18.0 software. The chi-square test was used for the count data, the t-test was used for the measurement data, and the rank sum test was used for the grade data. The difference was statistically significant at P<0.05. .

# 2. Results

2.1 The clinical efficacy of the two groups of patients compared with the study found that the treatment effect of the study group was significantly better than the control group, the difference between the two groups was statistically significant

(P < 0.05) see Table 1.

Table 1 Comparison of clinical efficacy between the two groups of patients

Group	n	Significant	effective	invalid	Total
		effect			efficiency
research	40	28(70.00)	10(25.00)	2(5.00)	38(95.00)
group	40	20(50.00)	12(30.00)	8(20.00)	32(80.00)
therapy group					
$X^2$	/	/	/	/	6.924
P	/	/	/	/	P<0.05

2.2 The incidence of adverse effects in the two groups was compared The incidence of side effects of hormones in the study group was found to be significantly higher than that of the control group. The difference between the two groups was statistically significant (P<0.05).

Table 2 Comparison of the incidence of adverse effects between the two groups of patients

Group	n	Five	Dizziness	Irritable	feel sick	Thirsty
		hearts are	and		and	insomnia
		hot	tinnitus		vomit	
research	40	12(30.0)	6(15.0)	11(27.5)	2(5.00)	5(12.50)
group	40	17(42.5)	10(25.0)	15(37.5)	5(12.50)	7(17.50)
therapy group						
$\mathbf{X}^2$	/	4.061	5.344	4.827	4.097	2.927
P	/	P<0.05	P<0.05	P<0.05	P<0.05	P<0.05

# 3. Discussion

In this study, the hormonal treatment of nephrotic syndrome was accompanied by partial western medicine for symptomatic supportive treatment. The western medicine used in the prevention and treatment of osteoporosis, anti-infection<sup>[3]</sup>, diuresis, anticoagulation, hypolipidemic, calcium supplementation, swelling, blood pressure reduction, etc. The role, but at the same time, the elimination of adverse

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effects of hormones, Western medicine itself may be accompanied by certain adverse effects, while the symptoms of yin deficiency, yang deficiency, qi deficiency and other symptoms described by Chinese medicine have not found efficacy. Chinese medicine plays its own characteristics in the prevention and treatment of the above adverse effects, and at the same time, it has the characteristics of small adverse reactions as Chinese herbal medicine<sup>[4]</sup>. Nephrotic syndrome belongs to the category of traditional Chinese medicine (edema, low back pain, urinary turbidity) (conspiracy). According to the theory of traditional Chinese medicine, the main pathogenesis of nephrotic syndrome is spleen and kidney dysfunction, resulting in deficiency of qi and blood yin and yang, taking kidney deficiency as the standard, water dampness, damp heat, blood stasis as the standard, and treating spleen and warming kidney, nourishing yin and tonifying kidney. It is supplemented with traditional Chinese medicine for promoting blood circulation and removing blood stasis and improving immunity of the body, thereby protecting the hypothalamic-pituitary-adrenal axis and maintaining the physiological function of the adrenal cortex.

In this clinical observation, our department mainly used Ziyin, Wenyang and Bushen drugs. A large number of experimental studies have confirmed that these drugs have a certain significance in the prevention of adverse effects of hormones and the treatment of nephrotic syndrome<sup>[5]</sup>. The results showed that the study group was more effective than the control group, and the incidence of adverse effects was extremely low. Shen Ziyin et al. demonstrated through the rat model that the mother can inhibit the inhibition of the adrenal cortex and reduce the degree of atrophy of the adrenal cortex during the application of hormones. At the same time, supplemented with rehmannia root, it can also prevent the functional disorder of the HPA axis caused by the hormone alone, so that it is in a relatively normal dynamic balance. It shows that Ziyin drugs have an inhibitory effect on the adverse effects of hormones. At the same time, studies have shown that warming drugs can effectively protect cortisol against 8 [H axis inhibition. Warming kidney and kidney drugs can be used together with hormones to maintain hormones and promote protein synthesis in important organs such as heart, liver and lung, but to a certain extent reduce the inhibitory effect of exogenous hormones on lymphoid tissues and adrenal glands; The hormone is used together, and the antagonistic anti-hormone affects the synthesis of protein in the heart, liver and lung, but enhances the inhibitory effect of

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the hormone on the lymphoid tissue<sup>[6]</sup>, but has a certain protective effect on the adrenal gland, and is free from the atrophy of the gland. The changes of ultrastructure of adrenal cortical bundle cells in corticosteroid-suppressed animals by tonifying kidney Chinese medicine, and finding that tonifying kidney Chinese medicine can partially antagonize the inhibition of adrenal cortex function by hormones, and the protective effect of Zishen Yin Chinese medicine in the early stage of hormone application For the better, in the later period, Wenshenyang Chinese medicine is prominent. It is suggested that the early application of hormones should nourish kidney yin and warm up kidney yang in the later stage.

In summary, through the dialectical prevention and treatment of traditional Chinese medicine in patients with nephrotic syndrome caused by glucocorticoid therapy, it can effectively prevent patients from having adverse effects, improve the patient's disease itself, and reduce the incidence of adverse effects. The treatment of prognosis can be applied in clinical practice.

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